WHITE-TAILED DEER

Historical Perspective

White-tailed deer (Odocoileus virginianus) were reported to be quite abundant when European settlers arrived in Iowa in the early 1800's. Although the clearing and cultivating of land for agriculture may have initially improved the suitability of the landscape for deer, uncontrolled exploitation for food and hides rapidly reduced deer numbers. By 1880 deer were rarely sighted in much of the state and in 1898 the deer season was legally closed. By this time deer had been virtually eliminated from all parts of the state.

Re-establishment of deer into the state can be traced to escapes and releases from captive herds and translocation and natural immigration from deer herds in surrounding states. A conservative estimate of the population in 1936 placed statewide numbers at between 500 and 700 animals. This small herd grew steadily. By 1950 deer were reported in most counties and the statewide estimate topped 10,000. Concentrations in some areas beginning to cause problems by damaging agricultural crops. In response to these problems the first modern deer season was held in December of 1953 and 4,000 deer killed. The harvest exceeded 100,000 for the first time ever in 1996. The harvest approached 200,000 in 2004 and the deer herd is currently estimated to be about 360,000 before the fawning season.

Although deer are frequently associated with forested areas, deer are very adaptable and will utilize many different types of habitat as long as the area provides adequate cover. Examples of these types of areas include brushy draws and fence lines, marshes, and

grassy areas like those provided by the federal Conservation Reserve Program (CRP). Standing corn also provides ideal habitat for part of the year since it provides food, cover and easy travel lanes. Urban environments may also prove to be good habitat for deer, especially if there are green belts, parks or other natural spaces nearby.

Deer utilize almost all plants for food at one time or another during the year. Deer feeding habits can best be described as being widely selective as deer will sample many plants while feeding but often utilize a single, very palatable source of food for the majority of their diet. Preferred foods also change through the year in response to changing metabolic demands.

The whitetail's ability to thrive in Iowa is likely the result of an abundant, reliable food source and a winter climate where snow depths rarely exceed 12" for a prolonged length of time. These factors combine to allow deer to come through the "winter bottleneck" in excellent condition. The excellent nutrition also enables deer to have high reproductive rates. Many does in Iowa have a single fawn their first year and 2 fawns each subsequent year. Deer in the wild can maintain these high reproductive rates until they are past 10 years of age. Research in Iowa has found that 8 to 12% of adult does have 3 fawns.

Another reason that deer do so well in Iowa is that they are very mobile. Although many deer never move far from the area where they were born, a significant number (10-20% on average) leave and travel to new areas before establishing a core area. These core areas may change seasonally with deer shifting between wintering areas and fawning

areas. These movements allow deer to fill voids left open due to deaths and changing habitat. Thus deer easily pioneer into new areas when habitat is suitable. The highest rates of movement occur during 2 periods of the year. The first is in the spring when does move to their fawning areas. Many of the previous year's fawns are forced to find areas of their own at this time. The second period is in the fall during the breeding season. The breeding season or rut begins in mid-October and runs through mid-January, although the peak of activity occurs in mid-November.

Careful management of populations by man has also played an important role in allowing deer numbers to return to the levels enjoyed today. primarily Management consists regulating the doe harvest since hunting provides the major source of mortality for deer in Iowa today. Unchecked, Iowa's deer herd could grow at a rate of 20% to 40% each year. At this rate, deer numbers would double in as few as 3 years. With Iowa's agricultural crops providing abundant food, densities could potentially exceed 100 or more deer per square mile before natural regulatory mechanisms would begin to affect deer health and slow the rate of reproduction. Deer numbers this high would cause severe economic hardship to Iowa's landowners as well as alter the natural vegetative community. Maintaining a deer population in balance with the wants and needs of the people in the state is a difficult task and hunting is the only viable management option to achieve this goal.

2004-2005 Hunting Season Results

A record number of deer were killed during the 2004-2005 season. The estimated kill was 194,512 (Table 1.4) which is about 6% higher than in 2003

(Table 1.2). The previous record harvest was in 2003 when an estimated 182,856 deer were taken. Almost all of the increase was due to an increased kill of antlerless deer. The number of does killed increased by about 7,415 or 8% over 2003. Most of the increase was due to the extra 30,500 antlerless licenses available during all seasons as well as during the January season. The estimated number of antlered deer in the harvest has stayed about the same since 2000 (Fig. 1.8).

The season framework basically the same as last year (Table 1.1). This was the ninth year for the special January season and the 2nd year it was open in all 99 counties. Landowners in these counties could get a free tag for this season in addition to the normal free license and the regular tags a deer hunter could legally obtain. For the fourth year hunters in both shotgun seasons, the late muzzleloader season and the bow season were allowed to obtain a bonus antlerless license for all 99 counties in Iowa. For the first time hunters in all seasons could obtain an unlimited number of antlerless licenses. These licenses were restricted to a specific county.

About 2,000 deer were taken during special management hunts in urban areas and state and county parks and another 1,700 deer were taken on special depredation tags issued to landowners with damage problems.

Five of the top 10 counties for total kill were in the northeast corner of the state. Clayton was the top county for total kill with 8,436 deer or about 10.8 per square mile of area (Table 1.5 & 1.6). Osceola county had the lowest kill with an estimate of 190 deer or only about 1.0 deer per 2 square miles.

The relative precision of the harvest estimates from the 9 separate postcard surveys ranged from $\pm 2\%$ for first season

shotgun hunters to $\pm 11\%$ for the youth season. The relative precision for the doe harvest ranged from $\pm 4\%$ for first season shotgun hunters to $\pm 20\%$ for the youth season. A total of 50,683 license holders were sampled with 30,032 responses returned. This is a response rate of 60%.

Shotgun Season

The estimated kill during the shotgun seasons was 2% higher than the estimate for 2003 (Table 1.2). Most of the increase was due to increased number of licenses being issued. Success rates were a little lower than in 2003. This was the second year that first season shotgun hunters could purchase an antlerless license and the first year that hunters could purchase unlimited antlerless licenses for the regular deer seasons.

Antlered bucks made up about 38% of the total kill, while does made up 50% of the kill. The rest were buck fawns.

There were an estimated 79,077 hunters (paid licenses only) in the field during the first season and they killed 57,974 deer, while 56,878 hunters tagged 39,856 deer during the second season. This translates to a 70% success rate for first season hunters and 69% for second season hunters.

Does made up the largest proportion of the kill during both seasons. Forty six percent of the kill were does during the first season while does made up 56% of the deer tagged during the second season. Antlerless deer made up 57% of the kill during the first season and 70% of the kill during the second season. Hunters killed about 3% fewer antlered bucks during the shotgun seasons.

Only 13% of the paid hunters during the first shotgun season purchased at least 1 antlerless license for the shotgun season. Nearly 20% of the second season shotgun hunters purchased at least 1

antlerless license. First season hunters had an average of 1.18 paid licenses while second season hunters had an average of 1.24 paid licenses.

Hunting pressure (Fig. 1.1) was generally higher during the first season in most counties. About 58% of the hunters with paid licenses hunted during the first season. Highest hunter numbers were in eastern and southern Iowa during both seasons.

Deer kill (Fig. 1.2) was highest in eastern and southern Iowa during the first season and in the eastern parts of the state during the second season.

Success rates (Fig. 1.3) were good across most of the state in both seasons. Hunters in almost all counties had success rates greater than 60% especially during the first season. The only exception was in the northwest corner of the state.

Does made up less than 50% of the kill in most counties during the first season (Fig. 1.4). However does made up over 50% of the harvest in most counties during the second season.

First season hunters averaged 2.8 days in the field, while second season hunters averaged 3.9 days in the field.

Although the lack of precision of the county estimates (Table 1.5 and 1.6) makes it difficult to evaluate the kill in individual counties and determine whether management objectives are being met, it is possible to make some generalizations at a larger scale. Overall, regulations appear to be fairly effective in allowing more deer to be taken in southern and eastern Iowa (Fig. 1.5). Changes for 2004 also appear to have increased the doe harvest (Fig. 1.6) as does make up over 50% in most counties.

Bonus January Season

For the second year the special January season was held in all 99 counties

in Iowa to help reduce deer numbers. All licenses issued for this season were for antlerless deer only. A total of 23,313 licenses were issued, which is 28% more than last year. While 53% of the hunters who purchased one of these licenses reported that they actually tagged a deer only 29% of those with free licenses reported that they used them.

kill during this season increased the total kill by 5% and doe kill by 8% statewide but the impact in some counties was much greater. The harvest increased the county kill by up to 20% and the doe kill by up to 30% in some counties in southern Iowa. Hunters reported that 81% of the deer taken were does, 14% were buck fawns and 5% were bucks that had shed their antlers. The incidental kill of these shed antlered bucks increased the number of adult bucks killed by 8/10 tenths of 1%.

Archery

A record number of deer were taken by archers in 2004. The reported harvest of 31,593 was 13% higher than the previous record kill reported in 2003 (Table 1.4). An increase in the number of licenses issued, especially hunters purchasing extra antlerless licenses were the main reason for the increase. Success rates on the regular archery licenses went from 49% in 2003 to 46% in 2004 (Table 1.2). Hunters reported that 52% of the antlerless licenses were used to tag a deer.

Nearly 30% of the bowhunters purchased at least 1 antlerless license for the bow season. This was the highest proportion for any group of hunters. Archers on average had 1.44 paid licenses per hunter.

Fifty four percent of the deer taken by archers were male and 47% were antlered bucks. Archers averaged about 18 days in the field in 2004. The average archer hunted 34 days to bag a deer.

Muzzleloader

The estimated kill during the early muzzleloader season was 11% higher than reported in 2003. Increased numbers of licenses and higher success rates were the main reason for the increase. Hunters were allowed to purchase an unlimited number of antlerless license for this season for the first time.

About 59% of hunters reported that they tagged a deer. Bucks made up 55% of the kill, with antlered bucks making up about 45% of the total (Table 1.8). Hunters averaged about 4.6 days in the field.

Twenty one percent of the paid hunters in the early muzzleloader season purchased at least 1 antlerless license for the early muzzleloader season. Early season muzzleloader hunters had an average of 1.23 paid licenses.

The kill during the late muzzleloader season was about 12% higher than in 2003. The main reason was an increase in the number of licenses that were issued. Most of the increase was due to the extra antlerless licenses that were issued.

Over 60% of the deer taken were does and only 24% of the deer killed during the late muzzleloader season were antlered bucks. Hunters averaged about 6 days in the field.

Forty two percent of the paid hunters in the late muzzleloader season purchased at least 1 antlerless license for the late muzzleloader season. In fact, 31% of the paid late season muzzleloader hunters only had antlerless licenses. Late season muzzleloader hunters had an average of 1.26 paid licenses.

Nonresidents

Of the 6,000 any-sex licenses issued, 3,122 or 52% went to hunters during the shotgun seasons, 2,102 or 35% to bowhunters, and 773 or 13% to late season muzzleloader hunters. An additional 2,455 antlerless licenses were issued. Of these, 1,385 went to hunters during the shotgun season, 643 went to bowhunters, 78 went to late season muzzleloader hunters and 349 went to hunters participating in the holiday season that ran from December 24 to January 2.

About 58% of the shotgun hunters, 50% of the muzzleloader hunters and 46% of the archers were successful in tagging a deer. Less than 15% of the deer killed by nonresidents with any-deer licenses were does. Nonresidents spent an average of 5.6 days in the field. Nearly 60% of the nonresidents reported that they were hunting with an Iowa resident.

Special Youth/Disabled Hunter Season

The number of licenses issued for this special season was 12% higher in 2004 than in 2003. The hunt is restricted to youths 12 through 15 years old or hunters who are disabled. The young hunter had to pass a hunter safety course and had to be accompanied into the field by an adult. Only 90 licenses or roughly 2% of the total were issued to disabled hunters.

About half of the hunters were successful in bagging a deer. Slightly less than half of the deer taken were antlerless deer. These hunters spent an average of 4.3 days in the field.

Special Deer Management Zones

Special management hunts were conducted at 24 locations in 2004-2005 (Table 1.10). These hunts are designed to meet the management needs of areas such as state and county parks and urban areas

that are not suitable to be opened to general regulations. Most deer taken were antlerless and deer tagged did not count against the hunters regular bag limit. Most hunts were very successful in removing deer in these problem areas. An additional 2,484 tags were issued in depredation situations where hunters killed another 1,706 deer. This is a little higher than in 2003.

Population Surveys

Three techniques are used to monitor deer population trends in Iowa. These are 1) an aerial survey conducted in January - March after the deer seasons are complete, 2) a spotlight survey conducted in April, and 3) a record of the number of deer killed on Iowa's rural highways throughout the year. All of these surveys correlate well with the reported harvest over the last 15 years and appear to provide reliable long-term trend indices. However, none of these surveys can be considered absolutely reliable predictors of annual changes in the population because of high variability in the survey conditions.

Deer populations for the state as a whole appear to have increased during the past 3 to 4 years (Fig 1.7). All 3 surveys are higher than they were during the last time deer numbers peaked in the late 1980's (Table 1.9).

The aerial survey conducted after the 2004 hunting season (Jan-Mar 2005) was down about 15%. Conditions for this survey were fairly good in most areas and similar to what they were in 2004. The trend in aerial counts was up slightly over the past 3 - 5 years. There has been a lot of variability in the counts during this period.

The number of deer killed on rural highways increased by about 12% in 2004. When this number is adjusted for the increase in vehicle miles driven (kill per billion miles), the increase was 11%. In

general the trend in the number of roadkills has been slightly upward over the past 3 - 4 years.

The number of deer seen per 25 mile route on the spotlight survey increased by about 4% in 2005. The mean number of deer reported per route is over 60% higher than those recorded in the late 1980's. However part of this increase was due to a change in the placement of the routes in 1994 and 1995. The trend over the past 5 years is up as well.

Outlook for 2005

Hunters will see several changes in the 2005/2006 deer seasons. Regulations will again allow all hunters to take deer of either sex in both shotgun and muzzleloader seasons in all counties. These regulations may decrease the number of hunters that hunt during the second shotgun season.

The biggest changes for 2005 are designed to encourage hunters to kill more antlerless deer. Antlerless licenses will be available in every county for the fifth year and the antlerless quota was increased for some counties in the eastern and southern parts of the state. If hunters buy all of the antlerless licenses a total of 103,000 antlerless licenses could be issued for 2005 which is 19,000 more than in 2004 and nearly 80,000 more than were available in

2002.

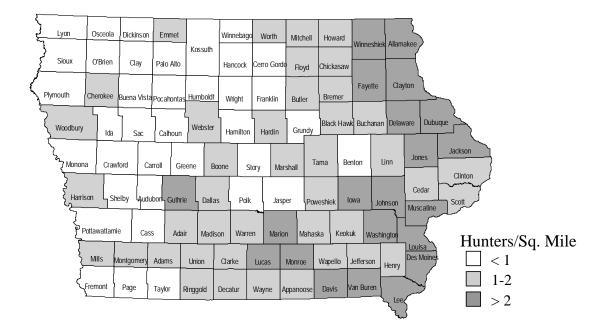
In an attempt to sell all of the licenses 2 new seasons will be added in 2005/2006. The first season will be for antlerless deer and run for 3 days beginning the Friday after Thanksgiving (Nov 25 -27). Licenses for this season will go on sale on November 12th. All hunters are eligible this and all shotguns. season muzzleloaders, pistols and bows that are legal in other seasons will be legal in this season. The bow season will not close. In 2004 45 counties would have sold out their antlerless quota and would not have had any licenses available.

The second new season is actually a 1 week extension to the bonus January season for the bottom 2 tiers of counties. Hunters who purchase an antlerless licenses for these counties for the bonus January season will get an extra week to hunt and centerfire rifles over .24 caliber will be legal weapons during the final week.

Hunters again will be allowed to obtain antlerless licenses in every season. The limit on the number of licenses a hunter can obtain is 3 before October 1 and unlimited after that date. All 99 counties will be open during the bonus January season again this year. The objective of these regulations is to bring deer numbers back to the 1995-96 target level.



Fig 1.1 The average number of hunters/square mile in each county during the 2004 shotgun season. Hunters with free landowner/tenant licenses are not included since their licenses were valid for both seasons.

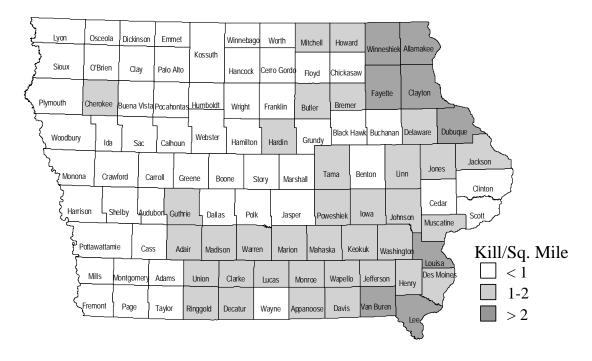


Season 1

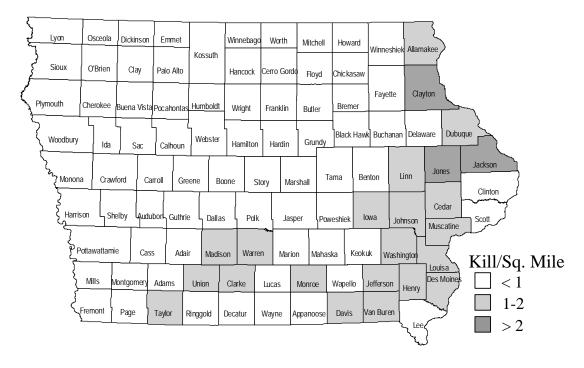


Season 2

Fig 1.2 The average number of deer killed/square mile in each county during the 2004 shotgun season. The kill by hunters with free landowner/tenant licenses was not included since their licenses were valid for both seasons.

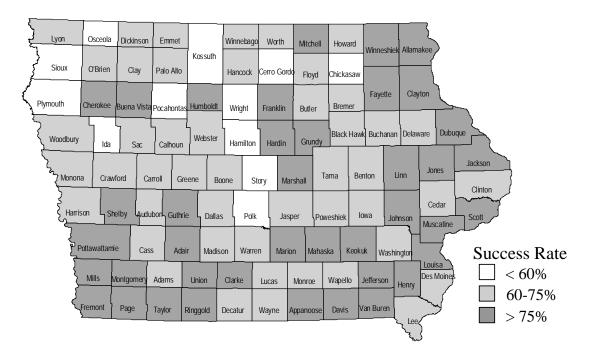


Season 1

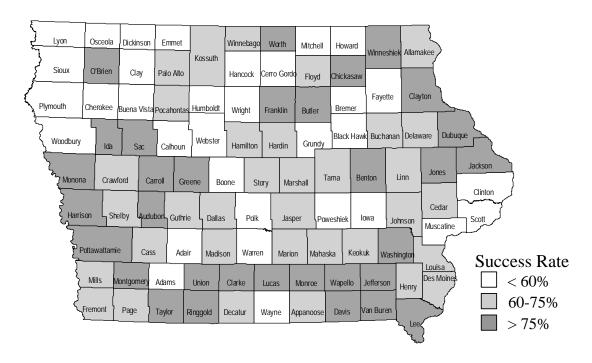


Season 2

Fig 1.3 The average success rate for hunters with paid licenses in each county during the 2004 shotgun season. Hunters with free landowner/tenant licenses are not included since their licenses were valid for both seasons.

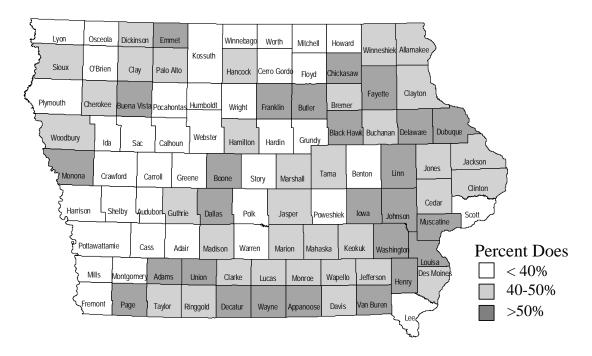


Season 1

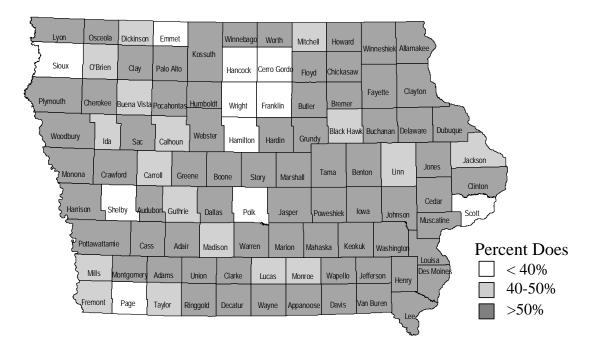


Season 2

Fig 1.4 The proportion of the harvest by hunters with paid licenses that were does during the 2004 shotgun season. The kill by hunters with free landowner/tenant licenses are not included since their licenses are valid for both seasons.



Season 1



Season 2

Fig $1.5\,$ The average number of deer killed per square mile in each county during the 2004 - 2005 deer season.



Fig 1.6 The proportion of the harvest that were does in each county during the 2004-2005 deer season.



Fig 1.7 Deer population indices and correlation with simulation, 1985-present.

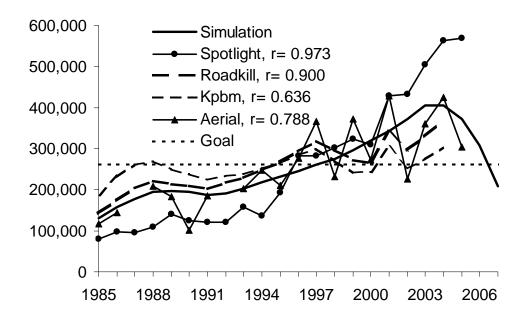


Fig 1.8 Deer population indices and correlation with simulation, 1986-present.

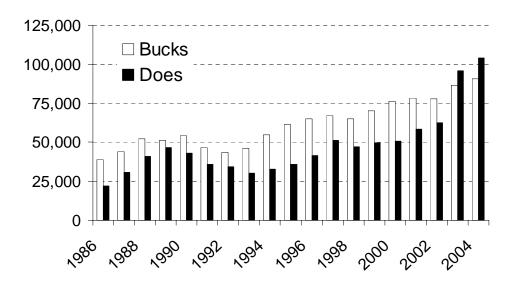


Fig 1.9 All counties were any-sex during all seasons in 2004-2005. All counties had antlerless licenses available and all counties were open for the bonus January season.

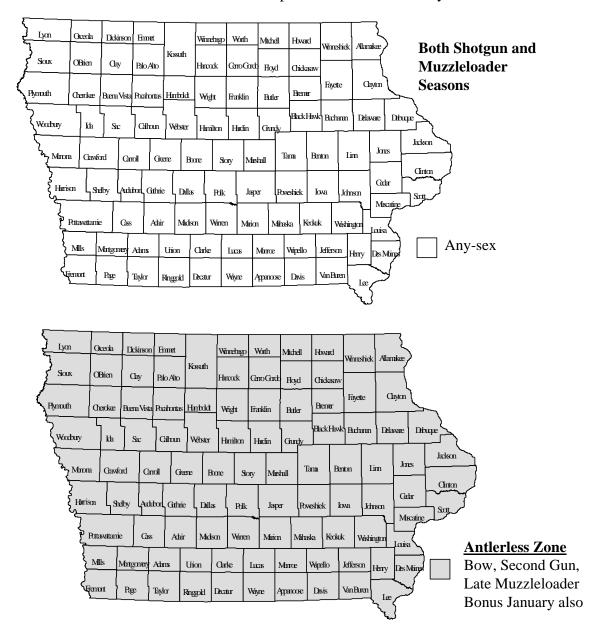


Table 1.1 The dates, hours and zones for shotgun, archery and muzzleloader seasons (1985-present). (Year summaries prior to the first year given are archived at http://www.iowadnr.com/wildlife/)

	,	Shotgun	-	Archery	-	ww.iowadnr.com/ Muzzleloader	,
Year	Zones	Dates	Hours	Dates	Hours	Dates	Hours
1985	1-10 e	Dec 7-11	Sunrise to	Oct 12-Dec 6	1/2 hr before	Dec 21-27	Sunrise to
1985	1-10	Dec 14-20	Sunset		sunrise to		Sunset
1986	1-10	Dec 6-10	"	Oct 11-Dec 5	1/2 hr after	Oct 11-17	1/2 hr before
1986	1-10	Dec 13-19	"		sunset	Dec 20-Jan 4	sunrise to
1987	1-10	Dec 5-9	"	Oct 1-Dec 4 &		Oct 10-18	1/2 hr after
1987	1-10	Dec 12-20	"	Dec 21-Jan 10	II .	Dec 21-Jan 10	sunset
1988	1-10	Dec 3-7	"	Oct 1-Dec 2 &		Oct 15-23	п
1988	1-10	Dec 10-18	"	Dec 19-Jan 10		Dec 19-Jan 10	п
1989	1-10	Dec 2-6	"	Oct 1-Dec 1 &	II .	Oct 14-Oct 22	"
1989	1-10	Dec 9-17	"	Dec 18-Jan 10		Dec 18-Jan 10	n .
1990	1-10	Dec 1-5	"	Oct 1-Nov 30 &	"	Oct 13- Oct 21	n .
1990	1-10	Dec 8-16	"	Dec 17-Jan 10		Dec 17-Jan 10	n .
1991	1-10	Dec 7-11	"	Oct 1-Dec 6 &	"	Oct 12- Oct 20	"
1991	1-10	Dec 14-22	"	Dec 23-Jan 10		Dec 23-Jan 10	"
1992	1-10	Dec 5-9	"	Oct 1-Dec 4&	"	Oct 10-Oct 18	"
1992	1-10	Dec 12-20	"	Dec 21-Jan 10		Dec 21-Jan 10	n .
1993	2	Dec 4-8	II .	Oct 1-Dec 3&	II .	Oct 9-Oct 17	II .
1993	2	Dec 11-19	II .	Dec 20-Jan 10		Dec 20-Jan 10	II .
1994	Statewide	Dec 3-7	"	Oct 1-Dec 2&	п	Oct 15-Oct 23	II .
1994	Statewide	Dec 10-18	II .	Dec 19-Jan 10		Dec 19-Jan 10	II .
1995	Statewide f	Dec 2-6	"	Oct 1-Dec 1&	"	Oct 14-Oct 22	n .
1995	Statewide	Dec 9-17	II .	Dec 18-Jan 10		Dec 18-Jan 10	II .
1996	Statewide g	Dec 7-11	"	Oct 1-Dec 6&	п	Oct 12-Oct 20	II .
1996	Statewide	Dec 14-22	II .	Dec 23-Jan 10		Dec 23-Jan 10	II .
1997	Statewide h	Dec 6-10	"	Oct 1-Dec 5&	п	Oct 11-Oct 18	II .
1997	Statewide	Dec 13-21	"	Dec 22-Jan 10		Dec 22-Jan 10	п
1998	Statewide h	Dec 5-9	"	Oct 1-Dec 4&	"	Oct 17-Oct 25	n .
1998	Statewide	Dec 12-20	II .	Dec 21-Jan 10		Dec 21-Jan 10	II .
1999	Statewide h	Dec 4-8	"	Oct 1-Dec 3&	п	Oct 16-Oct 24	II .
1999	Statewide	Dec 11-19	II .	Dec 20-Jan 10		Dec 20-Jan 10	II .
2000	Statewide i	Dec 2-6	"	Oct 1-Dec 1&	п	Oct 14-Oct 22	II .
2000	Statewide	Dec 9-17	II .	Dec 18-Jan 10		Dec 18-Jan 10	II .
2001	Statewide h	Dec 1-5	1/2 hr before	Oct 1-Nov 30 &	п	Oct 13- Oct 21	11
2001	Statewide	Dec 8-16	sunrise to	Dec 17-Jan 10		Dec 17-Jan 10	II .
2002	Statewide h	Dec 7-11	1/2 hr after	Oct 1-Dec 6 &	11	Oct 12- Oct 20	II .
2002	Statewide	Dec 14-22	sunset	Dec 23-Jan 10		Dec 23-Jan 10	п
2003	Statewide h	Dec 6-10	"	Oct 1-Dec 5 &	п	Oct 11- Oct 19	п
2003	Statewide	Dec 13-21	"	Dec 22-Jan 10		Dec 22-Jan 10	II .
2004	Statewide h	Dec 4-8	"	Oct 1-Dec 3 &	п	Oct 16- Oct 24	н
2004	Statewide	Dec 11-19	II .	Dec 20-Jan 10		Dec 20-Jan 10	II

e - Unlimited bucks-only statewide begining in 1973 in all following years

f - 34 counties were any-sex during 1st season and 74 were bucks only during first 7 days of the 2nd season

g - 35 counties were any-sex during 1st season and 26 were bucks only during the first 5 days of the 2nd season

h - all counties were any-sex during both seasons

i - 17 counties were buck-only during first 3 days of first season

Table 1.2 A summary of the number of licenses issued, the number of hunters, the number of deer harvested and success rates for the 2004-2005 season.

ARCHERY	TOTAL	70,138 (+11%)	65,202 (+17%)	31,045 (+13%)	48%
	Nonresident	2,745	2,588	1,020	39%
	Landowner	5,804	4,538	2,110	46%
ANCHERI	Antlerless	20,268	18,984	9,951	52%
ARCHERY	Paid	41,321	39,092	17,964	46%
	Total	4,372 (+12%)	4,292 (+15%)	2,197 (+16%)	51%
	Disabled	90	82	40	49%
	Landowner	304	262	91	35%
YOUTH	Paid	3,978	3,948	2,066	52%
HOLIDAI					
HOI IDAV	ANTLERLESS	349	329	102	31%
	Total	23,313 (+28%)	17,751 (+58%)	10,063 (+51%)	57%
	Landowner	9,131	5,242	2,608	50%
JANUARY	SEASON Paid	14,182	12,509	7,455	60%
		.5,2.5 (570)	23,000 (070)	_3, . (_ 70)	30 70
MUZZI FI C	DADER TOTAL	43,213 (+18%)	38,830 (+16%)	20,718 (+12%)	53%
	Total	30,088 (+22%)	27,347 (+24%)	13,900 (+12%)	51%
	Nonresident	851	697	350	50%
	Landowner	2,677	1,695	812	48%
	Antlerless	12,760	11,647	6,090	52%
Late	Paid	13,800	13,308	6,648	50%
	Total	13,125 (+10%)	11,483 (- 1%)	6,818 (+11%)	59%
	Landowner	3,237	2,026	1,229	61%
	Antlerless	2,378	2,272	1,249	55%
Early	Paid	7,510	7,185	4,340	60%
MUZZLEL	OADER				
GUN SEAS	ON TOTAL	205,986 (+ 7%)	194,002 (+10%)	126,678 (+ 2%)	65%
	Total	53,682 (+ 3%)	44,279 (+ 8%)	26,333 (+ 4%)	
	Antlerless	8,276	5,494	3,772	69%
Landowner		45,406	38,785	22,561	58%
	Total	152,304 (+ 8%) <i>a</i>	149,723 (+10%)	100,345 (+ 1%)	
	Nonresident	4,507	4,337	2,515	58%
	Antlerless	15,211	14,842	7,429	49%
	Season 2	48,057	46,920	32,427	69%
	Antlerless	13,074	12,813	8,691	68%
Paid	Season 1	71,455	70,812	49,283	70%
Season REGULAR	Type	155060	Tiunters	i iai vesi	Nate
Coccon	License	Licenses Issued	Number of Hunters	Harvest	Success Rate

a - the numbers in parentheses are the percent change from 2003-2004

 $[\]emph{b}$ - total include licensed hunters and kill from hunts in special deer management zones and depredation licenses

Table 1.3 Historical data on deer license issue by license type (1985 - present). Totals include special IAAP licenses (1985-1990), 4074 special late season AS licenses for zone 6 (1985), nonresidents, special management unit hunts and special youth licenses.

(Year summaries prior to the first year given are archived at http://www.iowadnr.com/wildlife/)

	Regi	ular Gun		Muzzle	loader			Grand
Year	Paid	Landowner	Total	Early	Late	Total	Archery	Total
1985	82,218	20,674	102,892		1,522	1,522	22,830	127,244
1986	84,858	25,432	110,290	2,246	1,973	4,219	26,521	141,030
1987	91,804	26,780	118,584	3,091	2,710	5,801	28,910	153,295
1988	101,338	28,002	129,340	3,565	3,618	7,183	30,020	166,543
1989	107,171	33,798	140,969	5,995	12,201	18,196	34,745	194,611
1990	106,781	27,106	133,887	6,602	15,949	22,551	35,217	192,551
1991	100,587	30,834	131,421	7,064	11,458	18,522	33,359	184,041
1992	100,461	30,084	130,545	8,280	10,978	19,315	34,165	186,436
1993	96,577	21,887	118,464	7,306	8,926	16,232	30,938	168,017
1994	102,773	22,809	125,582	8,113	9,737	17,850	34,222	180,525
1995	101,053	18,157	119,210	7,193	8,059	15,463	34,434	177,441
1996	106,746	28,080	134,826	8,806	11,820	20,626	36,351	202,834
1997	109,169	24,423	133,592	8,979	15,049	24,028	37,106	211,118
1998	114,358	25,960	140,318	9,504	12,721	22,225	39,506	223,419
1999	113,695	31,196	144,891	10,246	13,260	23,506	43,687	233,690
2000	113,728	32,116	145,844	10,279	15,242	25,521	44,658	229,800
2001	128,041	38,820	166,861	10,037	18,751	28,788	52,002	265,939
2002	118,973	42,989	161,962	9,807	19,479	29,286	51,534	265,185
2003	136,810	52,148	188,958	11,907	23,905	35,812	60,320	322,096
2004	147,797	53,682	201,479	13,125	29,237	42,362	67,393	353,172

Table 1.4 Historical data on deer harvest by license type (1985-present). Totals include IAAP harvest, special management unit hunts, nonresidents and youth.

(Year summaries prior to the first year given are archived at http://www.iowadnr.com/wildlife/)

	Regi	ular Gun		М	uzzleload	der		Grand
Year	Paid	Landowner	Total	Early	Late	Total	Archery	Total
1985	32,613	5,344	37,957		457	457	5,805	44,219
1986	41,352	10,378	51,730	349	728	1,077	9,895	62,702
1987	53,230	10,270	63,500	1,509	1,027	2,536	9,722	75,758
1988	66,757	13,298	80,055	1,835	1,294	3,129	9,897	93,756
1989	67,606	12,963	80,569	2,619	3,715	6,334	11,857	99,712
1990	69,101	9,095	78,196	2,819	5,884	8,703	10,146	98,002
1991	56,811	11,575	68,386	3,120	2,766	5,886	8,807	83,635
1992	50,822	10,453	61,275	3,316	3,231	6,564	8,814	77,684
1993	,	8,354	60,978	2,219	2,883	5,102	9,291	76,430
1994	59,054	8,735	67,789	2,610	3,196	5,806	12,040	87,231
1995	65,206	7,917	73,123	2,831	3,408	6,363	13,372	97,256
1996	71,577	10,896	82,473	2,895	4,558	7,453	12,314	107,632
1997	77,169	10,588	87,757	4,062	5,508	9,570	14,313	118,404
1998	73,165	9,989	83,154	4,448	5,343	9,791	12,302	112,608
1999	74,362	12,966	87,328	5,277	5,329	10,606	15,266	121,635
2000	77,743	13,189	90,932	4,585	5,936	10,521	17,727	126,535
2001	82,721	14,801	97,522	4,593	7,320	11,913	18,798	136,655
2002	77,940	18,932	96,872	5,091	7,772	12,863	20,703	140,490
2003	96,757	25,353	122,110	6,155	12,049	18,204	26,486	182,856
2004	97,830	26,333	124,163	6,818	13,550	20,368	30,025	194,512

Table 1.5 Harvest estimates and ranking for each season by county for total kill during the 2004-2005 deer season.

				Harvest							Rank			
_	Paid	Muzzlel	oader			Non-		Paid	Muzzle	loader			Non-	
County	Shotgun	Early	Late	Archery	Youth	resident	Total	Shotgun	Early	Late	Archery	Youth	resident	Total
Clayton	4,577	265	309	1,054	92	138	8,436	1	1	3	2	1	7	1
Van Buren	2,182	101	258	896	34	221	5,241	5	11	9	3	24	2	2
Allamakee	2,635	105	302	316	29	273	4,403	2	9	5	31	31	1	3
Linn	2,055	147	280	1,065	4	28	4,348	9	3	7	1	79	45	4
Dubuque	2,613	131	135	612	49	18	4,278	3	6	42	8	14	59	5
Jackson	2,331	88	153	478	49	72	3,989	4	15	28	14	15	15	6
Winneshiek	2,144	86	242	343	63	56	3,947	7	16	11	27	7	22	7
Johnson	2,077	173	339	628	88	49	3,912	8	2	2	7	2	25	8
Fayette	2,042	145	258	650	51	23	3,894	10	4	8	5	13	52	9
Davis	1,590	103	150	357	9	59	3,576	12	10	29	25	60	21	10
Jones	2,150	74	228	315	30	47	3,483	6	25	12	32	28	27	11
Washington	1,615	66	224	373	64	36	3,194	11	34	14	24	6	34	12
lowa	1,426	52	200	456	85	31	2,980	18	44	15	17	4	42	13
Appanoose	1,268	79	394	273	59	160	2,979	24	20	1	41	9	5	14
Clinton	1,304	72	171	839	39	17	2,972	21	27	22	4	20	64	15
Delaware	1,133	137	300	522	85	50	2,971	34	5	6	12	3	23	16
Guthrie	1,497	76	183	284	28	78	2,732	15	22	19	38	33	14	17
Lee	1,539	130	136	193	42	26	2,669	13	7	40	58	17	47	18
Cedar	1,291	60	160	523	22	68	2,632	22	39	24	11	43		19
Madison	1,428	73	124	192	6	139	2,599	17	26	43	59	67	6	20
Marion	1,520	92	148	382	54	25	2,546	14	13	31	22	11	48	21
Monroe	1,217	30	303	430	30	161	2,543	29	65	4	18	27	4	22
Warren	1,280	78	155	477	53	45	2,540	23	21	27	15	12		23
Keokuk	1,125	75	146	406	58	36	2,511	35	23	35	21	10	35	24
Butler	1,159	53	159	475	5	38	2,489	33	42	26	16	74		25
Muscatine	1,350	85	189	340	15	18	2,477	20	17	17	28	50	60	26
Henry	1,485	56	165	355	16	35	2,451	16	41	23	26	49	38	27
Tama	1,252	68	251	332	11	22	2,420	27	30	10	29	53		28
Taylor	1,236	23	99	144	0	202	2,406	28	78	59	74	93	3	29
Louisa	1,413	39	141	234	35	23	2,383	19	51	37	48	23	53	30
Wapello	1,050	67	119	331	29	13	2,369	40	33	45	30	30	69	31
Benton	1,086	66	226	571	10	38	2,343	37	35	13	10	59	32	32
Ringgold	1,167	29	96	284	0	79	2,306	32	67	61	39	86	13	33
Des Moines	1,253	50	107	242	6	33	2,204	26	46	51	43	63	39	34
Jasper	907	115	136	220	39	17	2,158	49	8	41	52	21	65	35
Pottawattamie	1,260	97	195	314	0	21	2,131	25	12	16	33	83	56	36
Lucas	1,191	31	100	212	20	98	2,126	30	63	57	54	44		37
Clarke	952	36	85	298	11	18	2,109	45	56	64	36	54	61	38
Jefferson	1,102	8	141	260	11	47	2,085	36	94	38	42	55	28	39
Hardin	1,056	68	147	279	17	32	2,033	39	31	34	40	47	41	40
Dallas	1,016	66	179	415	35	12	1,989	41	36	20	20	22		41
Woodbury	977	29	160	591	0	25	1,966	44	68	25	9	82		42
Decatur	944	27	79	121	0	82	1,944	46	71	67	78	94		43
Mahaska	1,182	15	73	239	0	33	1,917	31	88	70	44	87	40	44
Wayne	674	18	143	185	1	111	1,871	65	85	36	62	81	8	45
Chickasaw	872	75	101	187	20	10	1,796	51	24	55	61	45	76	46
Adair	924	32	101	226	6	27	1,772	47	60	56	51	65	46	47
Bremer	753	64	70	512	61	28	1,763	56	37	72	13	8	43	48
Union	885	20	138	87	30	48	1,755	50	82	39	82	29	26	49
Poweshiek	1,076	72	38	83	47	24	1,754	38	28	85	84	16	50	50

Table 1.5 (cont.) Harvest estimates and ranking for each season by county for total kill during the 2004-2005 deer season.

				Harvest							Rank			
-	Paid	Muzzl	eloader			Non-		Paid	Muzzle	loader			Non-	
County	Shotgun	Early	Late	Archery	Youth	resident	Total	Shotgun	Early	Late	Archery	Youth	resident	Total
Monona	1,004	48	120	311	0	96	1,751	42	48	44	34	84	10	51
Howard	679	82	86	233	26	35	1,745	64	18	63	49	34	36	52
Marshall	924	31	100	168	23	24	1,697	48	64	58	69	41	51	53
Page	810	43	113	205	0	67	1,676	54	50	46	56	90	18	54
Boone	604	68	148	188	40	62	1,663	69	32	32	60	18	20	55
Scott	655	24	41	636	6	3	1,649	66	75	83	6	61	92	56
Floyd	790	61	112	237	29	10	1,635	55	38	47	46	32	75	57
Harrison	990	30	149	182	26	66	1,629	43	66	30	65	35	19	58
Buchanan	702	59	107	420	16	3	1,615	58	40	50	19	48	90	59
Mitchell	840	49	43	154	31	42	1,497	53	47	82	70	26	30	60
Black Hawk	580	82	75	307	81	4	1,497	71	19	69	35	5	84	61
Adams	622	29	174	238	5	88	1,479	68	69	21	45	75	11	62
Webster	741	91	76	210	6	18	1,475	57	14	68	55	66	63	63
Montgomery	691	10	185	229	0	50	1,446	61	92	18	50	88	24	64
Cherokee	869	32	32	183	11	18	1,414	52	61	89	64	56	62	65
Mills	648	46	90	296	0	20	1,360	67	49	62	37	85	58	66
Fremont	684	24	112	179	23	35	1,318	63	74	49	66	40	37	67
Polk	594	23	71	380	6	9	1,277	70	79	71	23	62	78	68
Cass	692	15	80	116	12	68	1,255	60	89	65	80	51	17	69
Greene	570	72	60	236	6	3	1,220	73	29	74	47	64	93	70
Franklin	701	25	112	52	0	42	1,109	59	73	48	88	97	31	71
Crawford	690	14	66	149	0	13	1,054	62	90	73	73	92	70	72
Worth	438	32	148	153	5	28	991	76	62	33	71	77	44	73
Wright	392	52	54	205	0	22	953	83	45	77	57	91	55	74
Buena Vista	401	20	45	185	24	7	935	81	83	81	63	38	81	75
Story	577	26	46	171	5	4	901	72	72	80	67	76	87	76
Cerro Gordo	367	38	102	130	5	4	887	89	52	54	76	78	88	77
Kossuth	535	13	97	152	25	11	859	74	91	60	72	37	73	78
Plymouth	396	37	107	134	6	3	856	82	54	52	75	68	94	79
Lyon	369	34	20	45	26	11	824	88	59	94	92	36	72	80
Hamilton	386	21	16	115	6	20	799	84	81	97	81	70	57	81
Audubon	330	16	59	86	0	7	791	90	87	75	83	95	82	82
Sac	410	28	36	125	34	7	787	78	70	86	77	25	80	83
Hancock	410	53	55	17	18	0	750	79	43	76	97	46	96	84
Humboldt	374	18	24	213	0	3	735	87	86	92	53	89	95	85
Palo Alto	377	37	79	120	6	0	710	86	55	66	79	69	97	86
Clay	378	36	104	39	11	10	702	85	58	53	93	57	77	87
Carroll	324	19	35	171	40	7	690	92	84	87	68	19	79	88
O'Brien	445	24	20	59	12	6	680	75	76	95	87	52	83	89
Shelby	428	21	39	49	24	4	590	77	80	84	91	39	85	90
Sioux	406	36	27	52	6	14	586	80	57	91	89	72	68	91
Emmet	329	9	33	24	23	14	525	91	93	88	94	42	67	92
Winnebago	259	24	49	74	0	11	440	94	77	78	85	96	74	93
Dickinson	227	38	47	49	0	0	414	95	53	79	90	98	99	94
Grundy	292	3	12	14	3	0	408	93	96	98	98	80	98	95
Calhoun	189	3	12	69	6	17	369	97	97	99	86	71	66	96
lda	216	1	23	18	0	4	347	96	99	93	96	99	89	97
Pocahontas	146	3	19	19	11	3	231	98	98	96	95	58	91	98
Osceola	88	4	30	6	6	4	190	99	95	90	99	73	86	99
Total	97,830	5,351	12,226	27,404	2,197	3,987	194,512	-						

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Table 1.6 Harvest estimates by county for total kill during the 2004-2005 deer season.

						Percer	nt of kill:		
		Antlered		Button	-		Antlered	Hunters/	Kill/
County	Hunters	Bucks	Does	Bucks	Total	Does	Bucks		Sq. Mile
Adair	2,701	779	811	182	1,772	46%	44%	4.75	3.11
Adams	1,894	600	775	104	1,479	52%	41%	4.45	3.47
Allamakee	6,957	1,775	2,314	314	4,403	53%	40%	10.94	6.92
Appanoose	4,276	1,027	1,672	280	2,979	56%	34%	8.18	5.70
Audubon	1,328	355	404	32	791	51%	45%	2.96	1.77
Benton	3,503	798	1,288	257	2,343	55%	34%	4.88	3.26
Black Hawk	2,622	536	778	183	1,497	52%	36%	4.62	2.64
Boone	3,074	483	994	186	1,663	60%	29%	5.36	2.90
Bremer	3,076	790	829	144	1,763	47%	45%	7.01	4.02
Buchanan	2,600	593	905	117	1,615	56%	37%	4.58	2.84
Buena Vista	1,413	286	583	66	935	62%	31%	2.47	1.63
Butler	3,924	1,001	1,272	216	2,489	51%	40%	6.74	4.28
Calhoun	582	163	156	50	369	42%	44%	1.02	0.65
Carroll	1,102	295	342	53	690	50%	43%	1.92	1.20
Cass	1,941	519	563	173	1,255	45%	41%	3.47	2.25
Cedar	3,967	998	1,458	176	2,632	55%	38%	6.78	4.50
Cerro Gordo	1,927	368	389	130	887	44%	41%	3.35	1.54
Cherokee	2,069	675	704	35	1,414	50%	48%	3.61	2.47
Chickasaw	2,992	565	1,068	163	1,796	59%	31%	5.92	3.56
Clarke	3,138	726	1,166	217	2,109	55%	34%	7.31	4.92
Clay	1,474	252	420	30	702	60%	36%	2.59	1.23
Clayton	11,504	2,770	4,658	1,008	8,436	55%	33%	14.77	10.83
Clinton	5,020	1,216	1,410	346	2,972	47%	41%	7.24	4.29
Crawford	1,740	510	448	96	1,054	43%	48%	2.43	1.47
Dallas	3,469	757	1,029	203	1,989	52%	38%	5.81	3.33
Davis	5,007	1,160	1,989	427	3,576	56%	32%	9.84	7.03
Decatur	3,039	559	1,116	269	1,944	57%	29%	5.73	3.67
Delaware	4,261	1,062	1,646	263	2,971	55%	36%	7.45	5.19
Des Moines	3,695	785	1,140	279	2,204	52%	36%	9.06	5.40
Dickinson	807	159	235	20	414	57%	38%	2.12	1.09
Dubuque	6,664	1,360	2,416	502	4,278	56%	32%	10.89	6.99
Emmet	1,179	196	310	19	525	59%	37%	2.99	1.33
Fayette	6,122	1,225	2,357	312	3,894	61%	31%	8.41	5.35
Floyd	2,497	508	876	251	1,635	54%	31%	4.96	3.25
Franklin	1,714	369	596	144	1,109	54%	33%	2.92	1.89
Fremont	1,893	655	567	96	1,318	43%	50%	3.61	2.52
Greene	2,022	476	560	184	1,220	46%	39%	3.55	2.14
Grundy	645	184	221	3	408	54%	45%	1.29	0.81
Guthrie	4,095	1,109	1,307	316	2,732	48%	41%	6.87	
Hamilton	1,525	485	274	40	799	34%	61%	2.64	1.38
Hancock	1,446	210	345	195	750	46%	28%	2.54	1.32
Hardin	3,051	849	1,053	131	2,033	52%	42%	5.32	3.54
Harrison	2,727	653	792	184	1,629	49%	40%	3.92	2.34
Henry	3,644	682	1,433	336	2,451	58%	28%	8.28	5.57
Howard	2,799	549	976	220	1,745	56%	31%	5.94	3.70
Humboldt	1,173	404	283	48	735	39%	55%	2.70	1.69
lda	749	147	165	35	347	48%	42%	1.74	0.81
lowa	4,698	1,004	1,595	381	2,980	54%	34%	8.04	5.10
Jackson	5,453	1,567	1,966	456	3,989	49%	39%	8.47	6.19

Table 1.6 (cont.) Harvest estimates by county for total kill during the 2004-2005 deer season.

-						Percei	nt of kill:		
		Antlered		Button	_		Antlered	Hunters/	Kill/
County	Hunters	Bucks	Does	Bucks	Total	Does	Bucks	Sq. Mile	Sq. Mile
Jasper	3,430	724	1,276	158	2,158	59%	34%	4.67	2.94
Jefferson	2,786	671	1,199	215	2,085	58%	32%	6.39	4.78
Johnson	6,759	1,083	2,361	468	3,912	60%	28%	10.92	6.32
Jones	5,025	917	2,026	540	3,483	58%	26%	8.59	5.95
Keokuk	3,785	845	1,366	300	2,511	54%	34%	6.54	4.34
Kossuth	1,812	327	465	67	859	54%	38%	1.85	0.88
Lee	4,364	904	1,344	421	2,669	50%	34%	8.28	5.06
Linn	6,347	1,638	2,086	624	4,348	48%	38%	8.85	6.06
Louisa	3,426	612	1,464	307	2,383	61%	26%	8.50	5.91
Lucas	3,344	889	944	293	2,126	44%	42%	7.71	4.90
Lyon	1,589	457	309	58	824	38%	55%	2.70	1.40
Madison	4,429	996	1,230	373	2,599	47%	38%	7.85	4.61
Mahaska	2,888	791	912	214	1,917	48%	41%	5.05	3.35
Marion	4,224	834	1,292	420	2,546	51%	33%	7.45	4.49
Marshall	2,454	576	882	239	1,697	52%	34%	4.28	2.96
Mills	1,940	581	638	141	1,360	47%	43%	4.34	3.04
Mitchell	2,223	702	614	181	1,497	41%	47%	4.76	3.21
Monona	2,715	841	850	60	1,751	49%	48%	3.88	2.51
Monroe	3,513	1,051	1,232	260	2,543	48%	41%	8.08	5.85
Montgomery	1,990	537	766	143	1,446	53%	37%	4.72	3.43
Muscatine	4,191	735	1,465	277	2,477	59%	30%	9.46	5.59
O'Brien	1,236	378	250	52	680	37%	56%	2.15	1.18
Osceola	795	78	90	22	190	47%	41%	2.00	0.48
Page	2,528	626	877	173	1,676	52%	37%	4.73	3.13
Palo Alto	1,142	291	373	46	710	53%	41%	2.04	1.27
Plymouth	1,894	311	408	137	856	48%	36%	2.19	0.99
Pocahontas	557	115	102	14	231	44%	50%	0.96	0.40
Polk	2,928	588	565	124	1,277	44%	46%	4.93	2.15
Pottawattamie	3,529	953	1,036	142	2,131	49%	45%	3.66	2.21
Poweshiek	3,034	833	838	83	1,754	48%	47%	5.15	2.98
Ringgold	3,033	746	1,397	163	2,306	61%	32%	5.64	4.29
Sac	1,280	325	406	56	787	52%	41%	2.21	1.36
Scott	3,326	680	785	184	1,649	48%	41%	7.33	3.63
Shelby	1,178	354	185	51	590	31%	60%	2.01	1.01
Sioux	1,445	297	270	19	586	46%	51%	1.89	0.77
Story	1,981	372	464	65	901	51%	41%	3.49	1.59
Tama	3,877	1,039	1,203	178	2,420	50%	43%	5.38	3.36
Taylor	3,010	792	1,359	255	2,406	56%	33%	5.70	4.56
Union	2,398	657	931	167	1,755	53%	37%	5.64	4.13
Van Buren	6,839	1,413	3,162	666	5,241	60%	27%	14.04	10.76
Wapello	3,554	768	1,294	307	2,369	55%	32%	8.13	5.42
Warren	4,877	1,211	1,017	312	2,540	40%	48%	8.53	4.44
Washington	4,512	817	1,927	450	3,194	60%	26%	7.94	5.62
Wayne	3,174	517	1,127	227	1,871	60%	28%	5.97	3.52
Webster	2,631	622	771	82	1,475	52%	42%	3.66	2.05
Winnebago	1,004	189	226	25	440	51%	43%	2.50	1.10
Winneshiek	5,426	1,257	2,158	532	3,947	55%	32%	7.89	5.74
Woodbury	3,396	606	1,163	197	1,966	59%	31%	3.90	2.26
Worth	1,502	366	513	112	991	52%	37%	3.76	2.48
Wright	1,795	494	396	63	953	42%	52%	3.11	1.65
Total	306,114	69,600	103,785	21,127	194,512	53%	36%	5.46	3.47

Table 1.7 A summary of archery season dates, hours, success rates and other information (1985 - present). (Year summaries prior to the first year given are archived at http://www.iowadnr.com/wildlife/)

Year	Dates	Hours	Percent Bucks in Harvest	Success Rate	Mean	Canaral Cammanta
						General Comments
	Oct 12-Dec 6	sunrise to	68	26	15	\$ 20 fee.
	Oct 11-Dec 5	1/2 hr	72	38	17	Limit 1/Bow and 1/Gun
1987	Oct 1-Dec 4 &	after sunset	68	35		Added late season.
	Dec 21-Jan 10	"				
1988	Oct 1-Dec 2 &		71	35	16	
	Dec 19-Jan 10	"				
1989	Oct 1-Dec 1 &	"	73	36	20	Bonus 2nd tag for antlerless deer
	Dec 18-Jan 10	"				statewide
1990	Oct 1-Nov 30 &	"	65	32	19	Bonus tag for antlerless early or
	Dec 17-Jan 10	"				anysex late,statewide
1991	Oct 1-Dec 6 &	"	73	28	17	Bonus tag for antlerless deer available
	Dec 23-Jan 10	"				only in zones 3a,4a,5a and 6. \$25 fee.
1992	Oct 1-Dec 4 &	"	69	28	15	Bonus tag for antlerless deer available
	Dec 21 -Jan 10	"				only in bonus antlerless zone if no gun tag.
1993	Oct 1-Dec 3 &	"	73	32	17	Bonus tag for antlerless deer available
	Dec 20-Jan 10	"				only in bonus antlerless zone if no gun tag.
1994	Oct 1-Dec 2&	"	77	37	16	Bonus tag for antlerless deer available
	Dec 19-Jan 10	"				only in bonus antlerless zone if no gun tag.
1995	Oct 1-Dec 1&	"	76	39	17	Bonus tag for antlerless deer available
	Dec 18-Jan 10	"				only in bonus antlerless zone if no gun tag.
1996	Oct 1-Dec 6&	"	78	37	16	Bonus tag for antlerless deer available
	Dec 23-Jan 10	"				only in bonus antlerless zone if no gun tag.
1997	Oct 1-Dec 5&	"	71	42	17	Bonus tag for antlerless deer available only in
	Dec 22-Jan 10	"				bonus antlerless zone. Could get firearm license also.
1998	Oct 1-Dec 4&	"	76	34	15	Bonus tag for antlerless deer available only in
	Dec 21-Jan 10	"				bonus antlerless zone. Could get firearm license also.
1999	Oct 1-Dec 3&	"	79	37	16	Bonus tag for antlerless deer available only in
	Dec 20-Jan 10	"				bonus antlerless zone. Could get firearm license also.
2000	Oct 1-Dec 1&	"	80	44	17	Bonus tag for antlerless deer available only in
	Dec 18-Jan 10	"				bonus antlerless zone. Could get firearm license also.
2001	Oct 1-Nov 30&	"	75	37	17	Bonus tag for antlerless deer available in every county.
	Dec 17-Jan 10	"				Could get firearm license also.
2002	Oct 1-Dec 6 &	"	66	39	17	Bonus tag for antlerless deer available in every county.
	Dec 23-Jan 10	"				Could get firearm license also.
2003	Oct 1-Dec 5 &	"	54	44	18	Bonus tag for antlerless deer available in every county.
	Dec 22-Jan 10	"				Could get firearm license also.
2004	Oct 1-Dec 3 &	II .	54	46	18	Bonus tag for antlerless deer available in every county.
	Dec 20-Jan 10	"				Could get firearm license also.

Table 1.8 A summary of muzzleloader season dates, hours, success rates and other information (1985 - present).

			Percent			
			Bucks	Success	Mean	
Year	Dates	Hours	in Harvest	Rate	Days/Hunter	General Comments
1985	Dec 21-27	Sunrise to	44	34	4	2000 A-S Quota. \$20 fee.
1303	DCC 21-21	Sunset	77	04	7	2000 A & Quota. \$20 fee.
1986	Oct 11-17	1/2 hr	100	17	4	2500 B-O Quota.
	Dec 20-Jan 4	before	43	40	6	Unlimited A-S Quota.
1987	Oct 10-18	sunrise	55	52	8	3000 A-S Quota
	Dec 21-Jan 10		46	42	6	Unlimited A-S Quota.
1988	Oct 15-23	1/2 hr after	55	55	4	3500 A-S Quota
	Dec 19-Jan 10	sunset	41	39	6	Unlimited A-S Quota.
1989	Oct 14-22	"	55	49	5	5000 A-S Quota
	Dec 18-Jan 10	II .	28	39	9	Unlimited A-S Quota. Could hunt during shotgun also.
1990	Oct 13-21	"	53	46	5	5000 A-S Quota
	Dec 17 -Jan 10	II .	50	45	8	Could hunt shotgun & late muzzleloader season.
1991	Oct 12-20	"	54	47	5	5000 A-S Quota
	Dec 23 -Jan 10	"	40	33	8	Could hunt shotgun & late muzzleloader season, but all
						2nd tags valid for antlerless only in zones 3a,4a,5a&6.
1992	Oct 10-18	"	60	45	4	7500 Anysex license quota.
	Dec 21-Jan 10	"	40	36	8	All second licenses antlerless, Zones 4a,5a&6.
1993	Oct 9-17	"	71	34	5	7500 license quota, 65 counties buck-only.
	Dec 20-Jan 10	"	46	39	8	Antlerless in 14 counties, 35 counties buck-only.
1994	Oct 15-23	"	78	36	5	7500 license quota, 67 counties buck-only.
	Dec 19-Jan 10	"	52	39	8	Antlerless in 14 counties, 35 counties buck-only.
1995	Oct 14-22	"	73	43	5	7500 license quota, 69 counties buck-only.
	Dec 18-Jan 10	"	55	46	8	No antlerless tags, 29 counties modified buck-only.
1996	Oct 12-20	"	75	39	5	7500 license quota, 64 counties buck-only.
	Dec 23-Jan 10	"	49	46	7	Antlerless in 15 1/2 counties, 26 modified buck-only.
1997	Oct 11-19	"	55	62	4	7500 license quota, no counties buck only
	Dec 22-Jan 10	"	44	52	7	Antlerless in 19 1/2 counties, no counties buck-only.
1998	Oct 17-25	"	64	52	5	7500 license quota, no counties buck only
	Dec 21-Jan 10	"	54	50	7	Antlerless in 20 counties, no counties buck-only.
1999	Oct 16-24	"	60	57	4	7500 license quota, no counties buck only
	Dec 20-Jan 10	"	52	46	7	Antlerless in 21 counties, no counties buck-only.
2000	Oct 14-22	"	60	53	4	7500 license quota, 16 counties modified buck only
	Dec 18-Jan 10	"	50	47	7	Antlerless in 21 counties, no counties buck-only.
2001		"	54	53	4	7500 license quota, no counties buck only
	Dec 17-Jan 10	"	52	44	8	Antlerless in all counties, no counties buck-only.
2002	Oct 12- Oct 20	"	65	56	4	7500 license quota, no counties buck only
	Dec 23-Jan 10	"	41	46	6	Antlerless in all counties, no counties buck-only.
2003	Oct 11- Oct 19	"	54	55	4	7500 license quota, no counties buck only
	Dec 22-Jan 10		37	51	6	Antlerless in all counties, no counties buck-only.
2004		"	55	58	5	7500 license quota, no counties buck only
	Dec 20-Jan 10	"	37	48	6	Antlerless in all counties, no counties buck-only.

Table 1.9 The results of the deer population surveys (1976 - present).

-						Traffic	Kill Per
		nt Survey	Aerial S	urvey		Billion Ve	ehicle Mi.
	Mean	Percent	Weighted	Percent	Traffic		Percent
Year	Count	Change	Count a	Change	Kill	Number	Change
1976	-	-	-	-	2,537	225	-1%
1977	-	-	-	-	2,929	252	12%
1978	6.9	-	-	-	2,872	241	-4%
1979	6.8	-1%	-	-	3,005	259	7%
1980	7.1	4%	-	-	3,743	335	29%
1981	5.9	-17%	-	-	4,164	365	9%
1982	12.0	103%	-	-	4,805	412	13%
1983	13.3	11%	5,903	-	5,335	448	9%
1984	16.4	23%	6,387	8%	6,177	500	12%
1985	15.4	-6%	7,607	19%	5,925	495	-1%
1986	18.5	20%	9,790	29%	7,225	593	20%
1987	18.2	-2%	-	-	8,440	678	14%
1988	20.8	14%	10,289	5% b	9,248	707	4%
1989	26.8	29%	9,672	-6%	8,914	655	-7%
1990	24.0	-10%	7,070	-27%	8,799	607	-7%
1991	23.0	-4%	9,191	30%	8,428	590	-3%
1992	23.0	0%	8,235	-10%	9,135	616	4%
1993	30.0	30%	8,680	5%	9,576	624	1%
1994	25.8	-14%	10,483	21%	10,438	663	6%
1995	35.3	37%	10,877	4%	11,167	699	5%
1996	51.1	45%	12,051	11%	12,276	748	7%
1997	51.1	0%	13,902	15%	13,148	778	4%
1998	55.9	9%	12,651	-9%	12,427	714	-8%
1999	59.9	7%	14,928	18%	11,366	637	-11%
2000	57.2	-5%	15,375	3%	11,114	642	1%
2001	81.4	42%	15,793	3%	14,243	799	24%
2002	80.0	-2%	13,107	-17%	12,377	662	-17%
2003	92.5	16%	15,676	20%	13,720	726	10%
2004	101.1	9%	18,028	15%	15,361	803	11%
2005	104.9	4%	15,324	-15%			

a - adjusted for missing counts

b - change form 1986 to 1988

Table 1.10 Results from controlled hunts in the special deer management zones for 2004-2005.

Area	Weapon	Licenses	Hunters	Harvest
Lake Panorama	Archery	200	137	51
Ledges State Park	Shotgun	50	50	42
Lake of Three Fires	Shotgun	45	30	25
Kent Park	Shotgun	100	77	37
Coralville, City of	Archery	400	162	107
Johnson County Zone	Archery &	500	244	175
	Firearm			
Black Hawk County Zone	Archery	306	163	76
Smith Wildlife Area	Shotgun	8	5	4
Lake Manawa State Park	Archery	37	26	13
Viking Lake State Park	Shotgun	45	45	34
Elk Rock State Park	Shotgun	50	28	22
Scott County Park	Shotgun	75	75	53
Linn County Zone	Archery &	500	269	165
	Firearm			
Squaw Creek Park	Archery	150	86	35
Marion, City of	Archery	125	51	56
Backbone State Park	Shotgun	120	119	80
Polk County Zone	Archery &	500	491	297
	Firearm			
Dubuque County Zone	Archery &	400	227	139
	Firearm			
Iowa Army Ammunition	Archery &	1000	634	336
Plant	Firearm			
Iowa Army Ammunition	Archery &	400	106	62
Plant (Perimeter Zone)	Firearm			
Springbrook State Park	Firearm	20	19	11
Lake Darling State Park	Firearm	200	112	80
Pine Lake State Park	Firearm	50	48	20
Green Valley State Park	Firearm	50	48	40
Lake Keomah State Park	Archery	50	20	13
DeSoto National Refuge	Archery &	70	45	30
	Firearm			
Depredation &	Archery &	3,248	2,484	1,706
Shooting Permits	Firearm			
Total		8,699	5,801	3,709